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EXAMINER

VANATTA, AMY B

ART UNIT PAPER NUMBER

3765

DATE MAILED: 01/13/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/894,483

Applicant(s)

COHEN ET AL.

Examiner

Amy B. Vanatta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Information Disclosure Statement

2. The information disclosure statement filed 10/9/01 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. Specifically, the four cited foreign patent documents (document nos. 3-6 on 1449) are not in English and have not been provided with a statement of relevance. The cover sheet states that these references are discussed in the specification, however the Examiner could not locate any mention of these references in the specification. Accordingly, these references have been lined through on the 1449 to indicate that they have not been considered.

Additionally, it is noted that the references listed on this 1449 which are in English have been considered, but do not appear to be relevant to the present invention. The Examiner questions whether this IDS was filed in the wrong application

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due to these discrepancies (i.e. not being pertinent and the references are not discussed in the specification, as stated on the cover sheet).

3. The information disclosure statement filed 8/27/02 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. Specifically, EP 477525 is not in English and has not been provided with a statement of relevance. Accordingly, this reference has been lined through on the 1449 to indicate that it has not been considered.

Specification

4. The disclosure is objected to because of the following informalities: On page 6, a brief description is provided for Figs. 5A and 5B, however only a Fig. 5 (no Fig. 5A and 5B) is shown in the drawings. Also page 8 refers to Figs. 5 A and 5B.

Appropriate correction is required.

Drawings

5. The drawings are objected to because there is no label indicating Figs. 5A and 5B, although these figures are described in the specification on pages 6 and 8. The drawings merely indicate a single Fig. 5. A proposed drawing correction or corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 13-15, 20, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite in claiming that the wool is roving. Claim 1 recites that the wool is in the form of yarn. "Roving" is a term in the art which generally refers to fibers which are formed by attenuating sliver. Thus, sliver is processed to form roving, and roving is processed to form yarn. It is unclear whether claim 3 is intended to recite that the yarn is formed out of wool roving, or whether the claim is reciting that the wool is in the form of roving rather than in the form of yarn.

Claim 13 is indefinite in reciting that the polymeric material is "wound or spun together with a core or the wool yarn in a helicoidal fashion". Thus, the claim recites two alternatives: the polymeric material is wound or spun with a core, or is wound or spun with the wool yarn. The former alternative (i.e. being wound with a "core") renders the claim indefinite since it is unclear how the polymeric material can be wound with a "core" (other than the wool), while also being wrapped around the wool (as recited in claim 1).

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Claim 20 is indefinite in reciting that the polymeric material is removed prior to dyeing, while claim 2 (from which claim 20 depends), recites that the wool yarn is dyed prior to weaving. Since the removal of the polymeric material is recited in claim 1 as being after the weaving, claim 20 and claim 2 are contradictory.

Claim 22 is confusing in reciting an article, garment, or cloth "whenever made by the process" disclosed in claim 1. It is unclear what is meant by such a limitation.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 4, 5-8, 16, 17, 22, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Madison et al (US 3,909,477).

Madison et al disclose a method including steps of shielding a yarn by applying a polymeric material (size) around the yarn. The size is applied over the entire yarn in a manner which forms a step of "wrapping" to the extent claimed. Madison discloses a step of weaving the combined yarn (the combined yarn comprising the yarn coated with size) and subsequently removing the polymeric material from the fabric (col. 1, lines 14-16 and col. 9, lines 22-25). Madison teaches that the yarn may comprise wool (col. 9, line 3). The polymeric material forming the size is a film, as in claim 26 (col. 2, line 20) and comprises a synthetic polymer as in claim 4. The polymeric material comprises

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copolymers of acrylic acid (see, e.g. Abstract line 16, and cols. 2-4) as in claim 8.

Although Madison discloses a polymeric material which is an improvement over polyvinyl alcohol, Madison does disclose that it is known to shield the yarn with water soluble polyvinyl alcohol (col. 1, line 14-17), as in claims 5-7. Regarding claim 16, the polymeric material (size) is dissolved in a solvent as claimed, and the solvent is water based as in claim 17 (col. 9, lines 23-50). Regarding product by process claim 22, Madison discloses a woven fabric which reasonably appears to have the same structure as the product claimed.

10. Claims 1, 9-11, 13, 16, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Somerville et al (GB 653,529).

Somerville et al disclose a method including steps of wrapping a polymeric material around a wool yarn to form a combined yarn, weaving the combined yarn, and subsequently removing the polymeric material (page 3, lines 34-47). The polymeric material (aluminum carboxy methyl cellulose) is a naturally occurring polymer which is a cellulose derivative as in claims 9-10. Somerville teaches that the polymeric material may be a continuous filament (pg. 3, line 8) as in claim 11. The polymeric material is wound with the core in a helicoidal fashion as in claim 13. The polymeric material is dissolved in a solvent as in claim 16 (pg. 3, lines 38-43). Regarding product by process claim 22, Somerville discloses a woven fabric which reasonably appears to have the same structure as the product claimed.

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11. Claims 1, 4, 11, 13-16, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Foster (US 2,450,948).

Foster discloses a method including a step of wrapping a polymeric material around a yarn. As shown in Fig. 1, polymeric material 12 is wrapped around the yarn 11 and shields the yarn at the regions where the material covers the yarn, thus serving the shield the yarn to the extent claimed. Foster discloses that the yarn 11 may comprise a single wool yarn (col. 2, lines 38-40). Foster discloses a step of weaving the combined yarn (10) to form a fabric (col. 3, line 58-60) and subsequently removing the polymeric material (12) from the fabric (col. 1, lines 49-50; col. 4, lines 25-34). The polymeric material comprises a synthetic polymer (col. 3, lines 3-4 and 17-28) as in claim 4. The filament forming the polymeric material is a continuous filament (col. 1, line 39) as in claim 11. The polymeric material is wound or spun with the core as in claim 13 (see Fig. 1). Figure 1 shows the yarns are being wound together in a manner which forms assembly winding to the extent recited in claim 14. The yarns 11,12 are also seen in Fig. 1 to be spun together and encompassing two components (11,12), thus being a bi-component spinning to the extent recited in claim 15. Regarding claim 16, Foster discloses a step of dissolving the polymeric material in a solvent (col. 4, line 32-34). Regarding product by process claim 22, Foster discloses a woven fabric which reasonably appears to have the same structure as the product claimed.

12. Claims 1, 2, 9-11, 13-16, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al (US 2,592,154).

Johnson et al disclose a method including steps of wrapping a polymeric material around a yarn. In col. 1, lines 9-24, Johnson discloses a prior art process which includes steps of wrapping a wool yarn with a cotton yarn, weaving the yarn into a fabric, and then removing the cotton yarn from the wool, as in claim 1. The cotton yarn is cellulosic, as in claim 10. Johnson also discloses an improved method which meets the limitations of claim 1, including a step of wrapping polymeric material (12 or 14) around the yarn (11 or 13). The polymeric wrapping material shields the yarn at the regions where the material covers the yarn, thus serving to shield the yarn to the extent claimed. Johnson discloses that the yarn (11 or 13) may comprise wool (col. 3, lines 38-42). Johnson discloses a step of weaving the combined yarn to form a fabric (col. 1, line 46; col. 4, line 24) and subsequently removing the polymeric material from the fabric (col. 4, lines 25-27). The polymeric material in the method of Johnson comprises calcium alginate, which is a natural polymer as in claim 9. The polymeric material is a continuous filament (col. 4, lines 21-22 and 30) as in claim 11. The polymeric material is wound with the core in a helicoidal fashion as in claim 13 (see Figs. 1-2). Figures 1 and 2 show the yarns being wound together in a manner which forms assembly winding to the extent recited in claim 14. The yarns are also seen in Figs. 1-2 to be spun together and encompassing two components (11,12), thus being a bi-component spinning to the extent recited in claim 15. The polymeric material is dissolved in a solvent as in claim 16 (col. 1, lines 12-13 and col. 3, line 63 – col. 4, line 28).

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Regarding claims 2 and 21, Johnson discloses that the woven fabric may include colored and uncolored yarns (col. 3, lines 31-33) forming striping threads. Since these yarns must be dyed prior to being woven into the fabric (in order to have some yarns in the fabric which are uncolored), the dyeing step is performed before the removal of the calcium alginate (since the calcium alginate is removed after the yarns are woven into a fabric).

Regarding claim 20, Johnson discloses that the insoluble metal soap which results from the removal of the calcium alginate may interfere with dyeing (col. 3, lines 63-71). Thus, Johnson contemplates that a dyeing step may occur after the removal of the calcium alginate, which meets the limitation of claim 20.

Regarding product by process claim 22, Johnson discloses a woven fabric which reasonably appears to have the same structure as the product claimed.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madison et al (US 3,909,477) in view of Schutz et al (US 3,885,277).

Madison discloses a method as claimed, however the wool yarn is not disclosed as comprising roving. Wool yarn is conventionally made from wool roving, however, as

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disclosed by Schutz et al. Schutz teaches that a yarn which is to be sized is conventionally made out of slivers which are processed to form roving, which is further processed so as to be formed into the yarn (col. 1, lines 21-44) prior to sizing and weaving. Such steps are conventional yarn forming steps. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use wool yarn which is formed from rovings in the method of Madison et al, since yarn is conventionally formed from rovings in order to obtain the desired yarn fineness and other physical properties, as disclosed by Schutz et al.

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madison et al (US 3,909,477).

Madison discloses a method as claimed, however the temperature range as disclosed in claim 18 is not taught. It is within the ordinary skill in the art, however, to determine the optimal processing temperature in the method of Madison through routine experimentation, based upon desired resulting yarn properties and other parameters of the method. It would have been obvious to one having ordinary skill in the art at the time the invention was made to carry out the process of Madison within a temperature range of 75-95 degrees Celsius, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

16. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster (US 2,450,948).

Foster discloses a method as claimed, and teaches that a solvent may be used to remove the polymeric filament from the fabric. Foster does not disclose what solvent is used, however solvents which are water based, as recited in claim 17, are conventional in the art and are commonly used. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a solvent which is water based in the process of Foster, since water based solvents are commonly used in the art, and furthermore, the makeup of the solvent in the method of Foster amounts to the use of a certain composition or material and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 18, Foster does disclose that the process is carried out at a temperature of, for example, 190° F (87.7° C) or at a temperature of 195°F (90.5 °C), which meets the limitation of claim 18 (col. 3, line 46 and 51).

Regarding claim 19, Foster discloses that the yarn is heated to shrink the yarn prior to weaving. Although Foster does not specifically disclose that steam is used in this step, steam is conventionally used to shrink textiles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use steam as the heat treatment in the process of Foster, since steam is known to effectively and quickly shrink textiles.

17. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Somerville et al (GB 653,529).

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Somerville discloses a method as claimed, and discloses that the wool yarn is fine, however the diameter of the wool is not disclosed. It is within the ordinary skill in the art, however, to determine the optimal wool diameter for use in the method of Somerville through routine experimentation, based upon desired resulting yarn properties and other parameters of the method. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use wool having a diameter of 17-21 microns in the method of Somerville, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Conclusion


18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is (703) 308-2939. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (703) 305-1025. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.


Amy B. Vanatta
Primary Examiner
Art Unit 3765

abv
January 7, 2004